

REMARKS

Claims 1-21 and 29-33 are pending in the case. Claims 22-28 and 35 were withdrawn subject to a restriction requirement. Claims 5, 10, 17, 20, 29 and 30 have been objected to due to informalities. Claims 1-21 are rejected under 35 U.S.C. §103(a). Claims 29-33 are objected to but would be allowable if amended to correct for the noted informalities. Applicant has amended the specification to correct typographical errors. Reconsideration is respectfully requested.

Claim Objections

The Examiner objected to Claim 29 due to a typographical error in the second paragraph of the claim. In the above amendments, Applicant has amended Claim 29 to correct the typographical error. Specifically, amended Claim 29 now recites "providing a semiconductor die having opposing active and inactive surfaces...with the inactive surface being at least partially exposed through a cavity formed in the semiconductor package." Applicant respectfully requests withdrawal of the claim objection to Claim 29.

The Examiner has also objected to Claims 5, 10, 17, 20 and 30 due to informalities as noted on page 2 of the Office Action. Claims 5, 10, 17, 20 and 30 have been amended above as suggested by the Examiner. Applicant respectfully requests withdrawal of the claim objections to Claims 5, 10, 17, 20 and 30.

Allowable Subject Matter

The Examiner has indicated that Claims 29 to 33 are allowable if amended to overcome the claim objections above. Since Claims 29 and 30 have been amended as required by the Examiner, passage of Claims 29 to 33 to allowance is respectfully requested.

Claim Rejections

The Examiner has rejected Claims 1-2, 5, 8, 11 and 12 under 35 U.S.C. §103(a) as being unpatentable over Gigante (US 4,372,803) in view of Ellerson et al. (US 5,252,179). The Examiner further rejects Claims 3, 4, 6, 7, 9 and 10 under 35 U.S.C. §103(a) as being unpatentable over Gigante in view of Ellerson et al. and further in view of Harris et al. (US 4,359,360), or Miller (US 5,064,498), or Yu (US 6,238,936), or Muller (US 5,956,142).

The Examiner has rejected Claims 13-21 under 35 U.S.C. §103(a) as being unpatentable over Gigante in view of Ellerson et al. and further in view of Muller.

In the present amendment, independent Claims 1 and 13 have been cancelled. The rejections as to these claims are therefore moot. New independent Claims 35 and 36 have been added. Dependent Claims 2-12 and 14-21 have been amended to depend from the newly added independent claims. The rejections as to Claims 2-12 and 14-21 are therefore also moot in view of the dependency from the newly added independent claims.

New Claim 35

Newly added independent Claim 35 is patentable over the cited references at least by reciting “positioning the adapter member adjacent the exposed surface of the semiconductor die to **form a channel** between the exposed surface of the semiconductor die and the adapter member; and **flowing an etchant through the channel** across the exposed surface from the first edge to the second edge to etch the semiconductor die” (emphasis added). The cited references, alone or in combination, fail to teach or suggest at least the above limitations of Claim 35.

Therefore, Applicant respectfully submits that Claim 35 is in condition for allowance. Claims 2-12, dependent from Claim 35, are also patentable over the cited references at least for the same reasons that Claim 35 is patentable.

New Claim 36

Newly added independent Claim 36 is patentable over the cited references at least by reciting “positioning the adapter member adjacent the second surface of the semiconductor die to **form a channel** between the second surface of the semiconductor die and the adapter member;...**flowing an etchant through the channel** across the second surface from a first edge of the second surface to a second edge of the second surface to etch the semiconductor die” (emphasis added). The cited references, alone or in combination, fail to teach or suggest at least the above limitations of Claim 36.

Therefore, Applicant respectfully submits that Claim 36 is in condition for allowance. Claims 14-21, dependent from Claim 36, are also patentable over the cited references at least for the same reasons that Claim 36 is patentable.

Rejoinder of All Previously Withdraw Claims under MPEP 821.04

The Examiner in Paper No. 4 has restricted the claims of the present application to two inventions: Invention I (Claims 1-21 and 29-33) drawn to a method and Invention II (Claims 22-28 and 34) drawn to an apparatus for practicing the method. Applicant had elected the method claims in Invention I and apparatus Claims 22-28 and 34 were withdrawn from consideration.

However, Applicant submits that new method Claim 35 is a generic claim. For the above reasons, Applicant submits that Claim 35 is in condition for allowance. Because apparatus Claims 22-28 and 34, as amended, include all the limitations of allowable method Claim 35, Applicant submits that the withdrawn claims should be rejoined in the present application per MPEP 821.04.

By the present amendment, Applicant has reinstated withdrawn Claims 22-28 and 34 for the Examiner's consideration. Claim 22 has been amended to correct typographical error. Claim 34 has been amended to more clearly define the subject matter Applicant regards as his invention. Applicant respectfully requests the Examiner to rejoin Claims 22-28 and 34 in the present application and to withdraw the restriction requirement made in Paper No. 4.

Claims 22-28 and 34

Claim 22 is patentable over the cited references at least by reciting "**a channel** is formed between the first surface of the second member and the exposed surface of the semiconductor die; and an input conduit in fluid communication with the channel **for providing a supply of etchant to the channel** for flowing across the exposed surface of the semiconductor die from the first edge to the second edge" (emphasis added). The cited references, alone or in combination, fail to teach or suggest at least the above limitation of Claim 22.

Therefore, Applicant respectfully submits that Claim 22 is in condition for allowance. Claims 23-28, dependent from Claim 22, are also patentable over the cited references at least for the same reasons that Claim 22 is patentable.

Claim 34 is patentable over the cited references at least by reciting "the means comprising a first member being positioned above the semiconductor die for forming a **channel** between the first member and the semiconductor die such that **the etchant flows in the channel** to etch the semiconductor die" (emphasis added). The cited references, alone or in combination, fail to teach or suggest at least the above limitation of Claim 34. Applicant respectfully submits that Claim 34 is in condition for allowance.

New Claim 37

Newly added independent Claim 37 is patentable over the cited references at least by reciting "an adaptor member having a first surface disposed adjacent the support surface such that when a semiconductor die is disposed on the support surface...**a channel** is formed between the first surface of the adaptor member and the exposed surface of the semiconductor die; and an input conduit...providing **a supply of etchant to the channel for flowing** across the exposed surface of the semiconductor die from the first edge to the second edge" (emphasis added). The cited references, alone or in combination, fail to teach or suggest at least the above limitations of Claim 37. Claim 37 is therefore in condition for allowance.

CONCLUSION

Claims 1-21 and 29-33 are pending in the present application. In the present submission, Claims 1 and 13 have been cancelled, Claims 2-12, 14-21, 29-30 and 33 have been amended and Claims 35-37 have been added. Furthermore, Claims 22-28 and 34 have been reinstated of which Claims 22 and 34 have been amended. The amendments to the specification made herein deal only with correcting clerical errors and form. No new matter has been entered. For the reasons stated above, Claims 2-12, 14-21, 29-33 and 35-37 and reinstated Claims 22-28 and 34 are in condition for allowance. Passage of the present application to allowance is respectfully requested.

If the Examiner would like to discuss any aspect of this application, the Examiner is invited to contact the undersigned at (408) 382-0480.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on May 16, 2003.

Carmen C. Cook
Attorney for Applicant(s)

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Date of Signature

Respectfully submitted,

Carmen C. Cook
Carmen C. Cook
Attorney for Applicant(s)
Reg. No. 42,433